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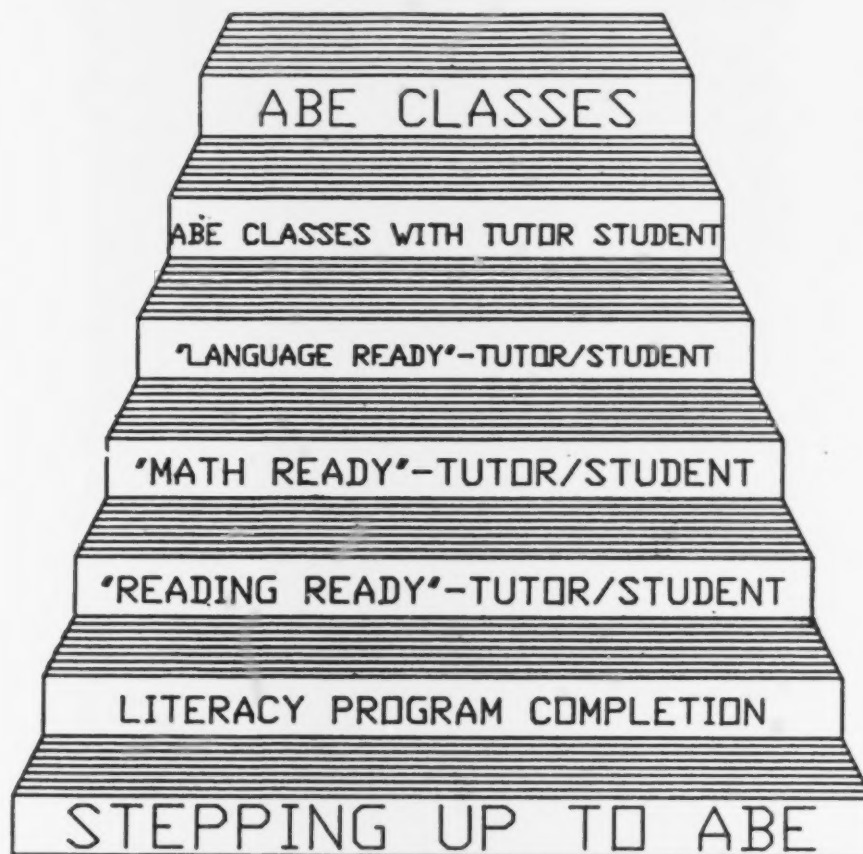
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ABSTRACT

The "Ready-Set-ABE" project was initiated to address the special needs of students entering adult basic education (ABE) programs directly from literacy training or others at a low level of ABE performance. The program was designed to provide these students with the tutoring they need to function successfully in mainstream ABE classes by introducing them to the more sophisticated reading, language, and math skills encountered in ABE classes (as opposed to those required for participation in adult literacy programs). A tutor training packet and three exercise workbooks that were geared specifically toward meeting the needs of transitional and low-level ABE students were developed. The tutoring program was used during the 1986-1987 school year with students who were identified as reading on the borderline of or below a fifth-grade reading level. Of the 18 students who participated in the program, 12 gained at least one grade level in their reading abilities. Six students found employment (better employment), five entered other training programs, one received a General Educational Development (GED) diploma, and four successfully completed some GED testing. Only 2 of the 18 students left the program early (1 moved to another area). Examples of parts of the reading, language, and math exercises developed for the program are included in this project report. A 115-item bibliography concludes the document. (MN)

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"Ready-Set-ABE"
to ease students' transition into
ABE level studies

by
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Supervisor/Instructor

June 27, 1987

Tuscarora Intermediate Unit No. 11
R.D. #1, Box 70-A
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"Ready-Set-ABE"

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"Reading Ready" Exercises	
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ABSTRACT

Title: "Ready-Set-ABE" - to ease students' transition into ABE level studies

Address: Tuscarora Intermediate Unit No. 11
R.D. 1, Box 70-A
McVeytown, PA 17051

Phone Number: (717) 899-7143

Director: Kenneth Calkin
Supervisor/Instructor: Carol Molek

Funding: \$7,000

Duration of Project: From: 8/24/86 To: 6/27/87

OBJECTIVES: 1) To provide tutoring techniques to best assist transitional/low level ABE students.

2) To critique existing materials at transitional/low ABE level.

3) To produce 3 exercise books for utilization with this level student.

4) To apply exercise books and tutor materials servicing at least 10 low level ABE students in '86-'87 school year.

DESCRIPTION: "Ready-Set-ABE" addressed the problem of serving students arriving for ABE classes directly from literacy training or others at a low ABE level of performance. Often these students' skills were above literacy level but not yet ready for a mainstream ABE class. It is these students who are often our dropouts because of the frustration of taking on more than they can handle too soon. The program planned to establish a tutor program for this special group using a tutor handbook and exercise books produced for their use. The eventual aim of the program was for students to be able to function independently or with the back-up support of a tutor in an ABE class.

TARGET AUDIENCE: This learning aid program was designed to benefit referrals from Mifflin County Library Literacy Program or people wishing to enter our ABE classes who were functioning at the lowest ABE level. Transitional literacy students needed to be introduced to the more sophisticated reading, language, and math they would encounter in ABE classes. Often low functioning or borderline ABE students are very resistant to entering a literacy program but are still not prepared to enter a regular ABE class. These ABE students also benefited from "Ready-Set-ABE."

PRODUCT (s): 1) A tutor packet specifically directed towards meeting the needs of transitional/low level ABE students.
2) 3 exercise workbooks.
3) A full report on the activities and goals achieved in the program.

METHOD OF EVALUATION: Evaluation was made at mid-year and end of the program by administrators to be sure specific goals were met. Goals were measured by the number and quality of products produced and participants served successfully. Final evaluation was based on how well transitional/low level ABE students involved proceeded in their ABE classes.

Introduction

"Ready-Set-ABE" addressed Pennsylvania Department of Education Priority #9. This project contributed to the improvement of our ABE program by developing support services for transitional literacy or lowest level (grade 5) ABE students.

The audience who received services were those potential students whose intake testing suggested a 4-5 grade reading level and/or an equally low or lower proficiency of math skills. These students did not fit into mainstream ABE classes and were served in 1 of 2 ways: 1) private tutor sessions were set up with a volunteer tutor or one of our instructors or, 2) individuals were referred to the Mifflin County Library Literacy Program.

The program was aimed at solving an ongoing problem of our Adult Center. The problem exists when a client comes to our program who needs special services and is yet not a true literacy candidate. Persons with a 4-5 grade reading level are often reluctant to enter the literacy program and would find the materials there too simplistic and unsophisticated. The local literacy program is an excellent starting point for many residents. However, for others there is a stigma attached to attending this program. These people come to us with the attitude of wanting to be in GED classes or nothing. On the other hand, entering a regular ABE class would quickly find these same students frustrated or potential dropouts.

This year, these ABE students entered the "Ready-Set-ABE" program. The proposed program developed exercises, tutor techniques and activities to eventually allow these students to enter the mainstream ABE classes. In so doing, retainment of students in our program was enhanced.

Objectives of "Ready-Set-ABE" were:

- 1) To provide tutoring techniques (producing a tutor training packet) to at least 5 volunteer tutors to best assist beginning ABE students with the skills needed to enter mainstream ABE classes.
- 2) To develop and utilize existing curriculum materials to create a firm foundation on which students can build up skill levels for ABE classes. 3 exercise books developed (for language, math, reading).
- 3) To organize and analyze existing materials commercially prepared for students of this level. Evaluation and critique of this material is provided.
- 4) To apply above materials and techniques in the instruction of at least 10 low level ABE students in the '86-'87 school year.

The time frame of "Ready-Set-ABE" was from 8/24/86 - 6/27/87 conforming to the local school calendar. Students entered the program on an ongoing basis throughout the school year. As soon as students were identified to be borderline level 5 during intake we began providing them with materials and services developed in this program. The tutor training sessions were held in November. Evaluation and development of materials to use with these students was a continuous process.

Staff contributing to the project were:

Ken Calkin, Director
Carol Molek, Supervisor/Instructor
Jack McCurdy, Counselor/Instructor
Betsy Stutts, Tutor Coordinator/Instructor
Barbara Goss, Instructor
Ginger Shade, Secretary

This report was prepared to deliver practical, applicable information to ABE supervisors, counselors, instructors and tutors. The problems of successfully serving transitional students is a much discussed topic among ABE educators. It is hoped that the information produced by this project will be adapted and utilized in many ABE settings.

Permanent copies of the report are on file with the Pennsylvania Department of Education, 333 Market Street, Harrisburg, PA 17126-0333; and AdvancE, Pennsylvania Department of Education Resource Center, Department of Education, 333 Market Street, Harrisburg, PA 17126-0333.

Administration

The proposed project was administered by the Tuscarora Intermediate Unit No. 11. The T.I.U. is a local educational agency which provides educational and management services to 9 school districts and 2 area vocational technical schools in Fulton, Huntingdon, Juniata and Mifflin Counties.

The major programs administered by T.I.U. include: Data Processing, Finance and Business Management, In-Service Education, Curriculum Improvement Services, Instructional Materials Services, Non-Public School Services, and Special Education Programs. In addition, the Intermediate Unit operates the Industry/Education Coordination Program.

The Intermediate Unit operates the 306 ABE and GED programs, the GED Alumni Association, JTPA ABE/GED programs and JTPA Job Search program as well as 2 other 310 projects at the Adult Education T.I.U. Center at the Juniata-Mifflin Area Vocational-Technical School.

Location

The "Ready-Set-ABE" program was operated at the Adult Education T.I.U. Center at the Juniata-Mifflin Area Vocational-Technical School. The Vo-Tech School is centrally located and close to the major population center of Mifflin County and currently provides vocational/technical education to over 500 secondary students as well as an established program of adult education classes including auto mechanics, carpentry, welding, carpentry, welding, computer literacy and an LPN program.

The "Ready-Set-ABE" program made use of Adult Center facilities where ABE/GED classes are held. An adult lounge and offices as well as other classrooms were available. The Vo-Tech School is a hospitable, comfortable environment for adults and the idea of developing more programs servicing adults in the school is encouraged by the administration and school board. Operating the "Ready-Set-ABE" program in a "GED" environment helped give these transitional students motivation to succeed at an ABE/GED level.

Program Design

The program design for "Ready-Set-ABE" fell basically into 3 areas: 1) transitional students' instruction in classes with/without tutor backup or on a one to one basis, 2) tutor training and participation, and 3) evaluation and development of curriculum and materials.

Instruction

In order to prepare low level ABE students for regular ABE classes, students worked with individual tutors in "Ready" sessions. Students needing these specialized services were identified during regular intake testing. If a student tested at the lowest ABE level (5) we suggested the "Ready" plan as opposed to that student entering a mainstream ABE class at that point. Students who tested at a high literacy level (4) at intake were encouraged to enroll in the local literacy program. However, when there was much resistance to this possibility, these students entered the "Ready" program on a trial basis. Once students were identified they were encouraged to meet regularly with their tutors completing whatever parts of the "Ready" plan that would be helpful to them in order to enter Pre-GED materials. The "Ready" plan that was offered to transitional students varied with each individual's needs and capabilities. The options were:

- to enter a regular ABE class with occasional back up help
- to enter a regular ABE class with additional sessions with a tutor
- to work one on one with a tutor

We were pleased to see that with this additional support, some of the transitional students were able to work more independently and be active participants in regular ABE class work.

Tutors

Of the 18 transitional students enrolled in the program (10 planned) all worked at least initially with a tutor or one on one with a staff person. 15 tutors volunteered (5 planned). Not all tutors ended up working with only transitional students. We have always used tutors whenever desired with regular ABE students having specific difficulties in a particular subject.

The tutors were recruited through local media who were supportive of and cooperative with the project lending much free exposure. Tutors also came to us by word of mouth. Several GED alumni were involved.

Tutor training consisted of two general introductory sessions where packets were distributed containing information about our programs, working with adult students, and each subject area. Follow-up sessions were held for particular tutor-interest areas. A tutor coordinator on staff dealt with matching tutors with students and individual problems that occurred.

As in working with any volunteer effort, there were problems. Some volunteers were not really suitable for the job at hand. Some did not have a sincere commitment. Others had to leave the program because of personal reasons. From our tutor "pool" there became about 6 "regulars," we could consistently depend on to do a fine job with our participants. Even though a volunteer project inherently has difficulties, the advantages of finding and using the best of the volunteers was worth the effort.

Tutors appreciated and referred to the tutor packets they received during training. The materials they received were adapted from CIU #10's report on "The Volunteer Learning Program," Penn State University's video tape programs, "Helping Adults Learn," Project F.I.S.T., Middlesex County College, New Brunswick, NJ; Special Needs Project: Staff Development for Volunteer Literacy Tutors, Delaware County Literacy Council, Chester, PA; Continuing Education for Volunteer Tutors in Allegheny County, Greater Pittsburgh Literacy Council, Pittsburgh, PA; In-Service Seminars for Tutors and Students, the Center for Literacy, Philadelphia, PA, as well as other sources and staff input.

Specific tutor techniques to assist students to more sophisticated reading materials than are used in literacy training were emphasized. It was stressed that the tutors' main goals were to establish firm building blocks in math and language on which students could develop more complicated skills. In addition to establishing a base of learning in specific content areas, tutors were encouraged to assist students in study skills and learning to learn.

Materials

As an ongoing part of the program an analysis of commercially produced materials available for the transitional student was done. A critiqued bibliography follows this report.

Three exercise books were developed for student/tutor use focusing on basic skills needed for a students' ABE class survival:

- "Reading Ready" contains exercises in science, social studies and literature areas of reading directed to developing specific reading skills needed for the more involved Pre-GED exercises students would encounter in ABE classes. Exercises were specifically designed to be of high interest to the students. In this area as well as the others, increasing and maintaining motivation of students was of prime importance.
- "Math Ready" exercises we worked to build a firm foundation of basic math skills particularly emphasizing the reading needed to deal with word problems.
- "Language Ready" exercises established a solid base of basic language structure so essential for more involved performance. A prescriptive approach was utilized with analysis of students' own writing as an effective tool for learning.

Examples of parts of exercises developed and adapted follow.

Language Ready

Transitional students in Language often have much difficulty in the basic concepts of sentence parts and their relationships.

Discovering subject and verbs in sentences:

Parts of a Sentence Subject/Verb

Directions: List the subject in the first column and the verb in the second.

subject	verb
	1. The safety of an airplane depends on countless small details.
	2. Ray and the new boy became close friends.
	3. A smooth concrete road winds like a snake through the mountains.
	4. Andy reached for the light switch and tripped over the chair.
	5. My soft boiled egg was good.

Distinguishing fragments from sentences:

Directions: On the line in front of each word group, write S if the word group is a complete sentence. Write F if the word group is a fragment. Read carefully!

- _____ 1. We shall see the soldiers.
- _____ 2. Do it now!
- _____ 3. Having no time to go.
- _____ 4. Especially where it is cold.
- _____ 5. At the start of the second game.

A thorough knowledge of the verb "to be" is essential:

VERBS - TO BE

IN THE following sentences, complete each one with some form of the verb to be. Try to vary the forms of the verb as much as possible. Be creative but be logical and sensible. Read your sentence after you have made the choice to be certain it is a good choice and that it makes sense.

- 1. I _____ very happy this morning.
- 2. Harry _____ the best player on the soccer team.
- 3. Beth _____ the leader of the senior girls.
- 4. It _____ my turn to do the dishes tonight.
- 5. This car _____ very expensive.

If students understand subject-verb agreement they have a good basis of understanding more complex exercises they will do in ABE classes.

DIRECTIONS: Circle the correct word in each of the following sentences:

1. A list of the semester's reading assignments(have, has) been posted.
2. Around us in every direction(were, was) miles of empty desert.
3. Five members of the class, including John, (were, was) going to camp.
4. Randall's chief interest in life(were, was) airplanes.
5. In the office there(is, are) a desk, a chair, and a filing cabinet.
6. Bread and butter(is, are) commonly served with tea in England.
7. Either the Times or the Herald Tribune(is, are) a reliable source of news.
8. Neither John nor his brother(like, likes) golf.
9. Each soldier and sailor(were, was) given a complete exam.

Irregular verbs are troublesome to most ABE students but particularly to transitional students. A chart of irregular verb examples for this referral is much appreciated by students. For practice, a fill-in-the-blank chart is excellent practice.

Fill in the missing principal parts of the following verbs:

<u>Present</u>	<u>Past</u>	<u>Past Participle</u>
1. _____	arose	_____
2. _____	_____	borne
3. _____	beat	_____
4. become	_____	_____
5. _____	_____	begun

Students find grammar terminology confusing. We stay away from complex terms as much as possible. Summary sheets of basic terms are very handy and work as a kind of security for students to have.

GREAT GRAMMAR

A common noun is the name of a person, place, thing, or idea.

Examples: The toy is new.
We saw the girl dive.

A proper noun is the name of a particular person, place, or thing.

Examples: Mary won the game.
We went to Disneyland.
He played Scrabble all night.

A pronoun is used in place of a noun.

Examples: You are Bill's friend.
I saw him at the circus.
She plays the drums.

A verb expresses action or being.

Examples: My dog jumps high.
He is my pal.
That was a good lunch.

An adjective describes a noun or pronoun by telling how many, what kind, or which one.

Examples: We have six apples. (how many)
He wore a fancy shirt. (what kind)
That girl lives here. (which one)

Adapted from:

Mary Wiemann,
Macmillan Instant
Activities Program,
Grammar/Spelling.

Pg. 10.

One area we found transitional students particularly need help with is vocabulary development. Reading for context clues or quizzes like Reader's Digest's "Word Power" are helpful.

IT PAYS TO ENRICH YOUR WORD POWER

By Peter Funk

Relationships between people are popular topics for talk shows, books and articles. The following words all have to do with how people behave toward one another. How many of them can you relate to accurately? Turn the page to find out.

1. **falchry**—A: unstable. B: troubled. C: fiery. D: unpleasant.
2. **opportunism**—person who A: enjoys adventures. B: is especially responsible. C: takes advantage of circumstances. D: is highly inventive.
3. **easy**—A: scheming. B: self-serving. C: shrewd. D: dishonest.
4. **curmudgeon**—person who is A: revolutionary. B: inconsiderate. C: somewhat spunky. D: lively and sociable.
5. **problematic**—A: perplexing. B: having a strong certainty. C: solvable. D: illusory.
6. **decile** (pron. tild) —A: lovable. B: weak. C: submissive. D: frightened.
7. **intemperate**—A: unfair. B: bitter. C: unrestrained. D: relaxed.
8. **unilateral**—A: similar. B: unanimous. C: one-sided. D: conforming.
9. **arbitrary** (aw row uh mee) —A: arbitrariness. B: dependence. C: inevitability. D: independence.
10. **cerebral** (pah zeh bray; zah eh bray)—relating to A: instinct. B: emotions. C: philosophy. D: intellect.
11. **improbable**—A: impulsive. B: overbearing. C: immensely brave. D: erratic.
12. **alienate**—A: to quarrel. B: estrange. C: prevent fulfillment of. D: resist stubbornly.
13. **lisspot**—A: quick. B: disrespectful. C: informal. D: amusing.
14. **manipulative**—pertaining to A: control. B: lawbreaking. C: love. D: convenience.
15. **diffident**—A: shy. B: unwilling. C: stubborn. D: respectful.
16. **strut**—A: introspection. B: opinionism. C: selfishness. D: otherworldliness.
17. **neurotic**—person who is A: tranquil. B: ecstatic.
18. **amenable**—A: hopeful. B: improvable. C: offensive.
19. **effusive** (eh ftoo siv)—A: messy. B: gushy. C: offended.
20. **persons**—A: the deepest self. B: one's belief. D: spiritual being.



USING THE CONTEXT

Richly decorated pagodas were first built in ancient India. The idea of pagodas then spread into China, Japan, and other parts of Asia. Pagodas are squares, hexagonal or octagonal, with (1) tiers or stories which (2) in size near the top. These unique towerlike buildings are usually used as Buddhist temples and shrines.

1. (A) no (B) unsightly (C) overlain (D) several

2. (A) triple (B) overrule (C) decrease (D) increase

Prospective singers probably shouldn't take up cheerleading. A study reveals that cheerleaders often develop hoarseness, lose their voice clarity, or become unable to produce sounds in their normal voice range. Cheering forces the (3) chords to band together furiously until, over a period of time, a (4) of tissue-like callus, develops on the chords.

3. (A) harmonious (B) dominant (C) vocal (D) responsive

4. (A) disposable (B) buildup (C) fragile (D) excited

Approximately 100,000 people apply for patents every year. Of their ideas, about four-fifths are actually granted patents. A patent gives seventeen years of (5) against (6) from manufacturers or other inventors. Nearly a quarter of the patents go to amateur inventors who operate without staffs of engineers.

5. (A) attack (B) protection (C) problems (D) protest

6. (A) spying (B) ingenuity (C) assistance (D) infringement

Scotland Yard, headquarters of the Metropolitan Police Force of London, England, got its name from an ancient building once used as the headquarters. (7) a palace for (8) Scottish kings during the 1100's, it became the police headquarters in 1662. Today, the headquarters has been moved to a new Scotland Yard near Westminster Abbey.

7. (A) Universally (B) Predominantly (C) Originally (D) Ultimately

8. (A) demanding (B) burgeoning (C) misleading (D) visiting

A woman by the name of Maria Spelterina made headlines in the late 19th century by becoming the first woman ever to walk a rope across the Niagara Gorge! Maria not only strolled across the Falls in 1876 with her feet (9) in baskets, but she also took the walk with her wrists and ankles (10) together.

9. (A) pecked (B) encased (C) squeezed (D) compressed

10. (A) assembled (B) chained (C) severed (D) embedded

Reading Ready Exercises

Tutors worked with students to improve reading comprehension skills. Short selections with follow-up questions concerning vocabulary, main ideas, inferences, etc. were used.

Reading flash cards were effective. The cards have a short reading selection on one side and questions on the other. These flash card exercises work well in 1-on-1 tutoring sessions:

1. How much broccoli would it take to make $3/4$ servings?
2. What are "the next 8 ingredients" that it says to add?
3. What is added last?
4. How long until the vegetables are tender?
5. How much cheese should you use for 12/16 servings?

JARLSBERG VEGETABLE BISQUE

3 Tbsp. butter
3 Tbsp. flour
4 cups chicken broth
2 cups coarsely chopped broccoli
 $1/4$ cup chopped carrot
 $1/2$ cup chopped celery
1 small onion, chopped
1 small clove garlic, minced
 $1/4$ tsp. thyme, crushed
 $1/2$ tsp. salt
 $1/4$ tsp. pepper
1 cup heavy cream
1 egg yolk
 $1 1/2$ cups shredded Jarlsberg Cheese

In large heavy saucepan, melt butter. Add flour and cook several minutes, stirring. Remove from heat. Gradually blend in broth. Bring to boil, stirring. Add next 8 ingredients. Cover, simmer 8 min. till vegetables are tender. Blend cream and egg. Gradually blend in several tablespoons soup. Return to soup and cook, stirring, till thickened. Blend in cheese. Serve. Makes 6 to 8 servings.

1. Is the shape of the sun important?
2. Why or why not?
3. What planet is closest to the sun?
4. What is another word for universe?
5. What is an astronomer?



The Fat Sun

Nothing in the universe is perfect, it seems, so it might not come as much of a shock that a team of University of Arizona astronomers has announced that the sun is not quite round.

The shape of the sun is important because of its effect on the motion of the innermost planet, Mercury.

1. Give the main idea.
2. What is Osteoporosis?
3. What is a tell tale sign of it?
4. How can Osteoporosis be prevented?
5. What does photon absorptiometry measure?

Osteoporosis, the brittle-bone disease, is not an inevitable part of aging; it can often be prevented by a high-calcium diet and exercise. Calcium supplements, estrogen, vitamin D supplements and fluoride may also help prevent—or treat—osteoporosis.

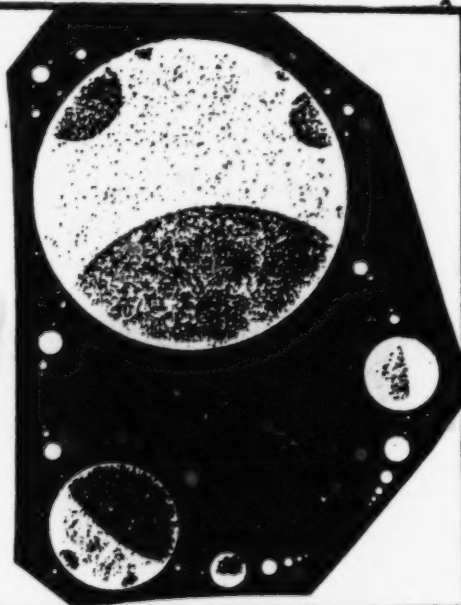
Osteoporosis can now be detected in its early stages, — long before telltale signs such as dowager's hump have appeared. A new technique known as photon absorptiometry measures bone mass and permits doctors to determine how fast someone is losing bone. Many medical centers now have the equipment to do the test.

Conventional geometry, the kind taught in high schools, was developed by Euclid more than 2,300 years ago. It

is essential for describing such things as triangles, points, circles, cones, and spheres. It has also been successful at describing some of nature's more regular creations, such as salt crystals, which are cubes, and the planets

But closer examination reveals that the universe is a pretty irregular,

or, as even scientists have been forced to call it, "lumpy," place. "Clouds are not spheres, mountains are not cones, coast lines are not smooth."



1. Who developed conventional geometry?
2. What is it used for?
3. Name some things that it is NOT useful for.
4. When was conventional geometry developed?
5. What conclusions can you draw from the passage?

1. Give the main idea in two words.
2. What are the Nazca lines?
3. Where are they located?
4. Who discovered them and when?
5. Why weren't they discovered sooner?

Half a century has elapsed since an aerial survey team first looked down on a stretch of stony desert near Peru's southern coast and discovered the famous Nazca lines—immense geometric patterns and pictures of birds, beasts, and insects the size of football fields, etched across 30 miles of barren landscape by a long-forgotten civilization.

From ground level, these stylized images look like little more than mazes of long, shallow ditches dug in the surface layer of reddish brown stones to reveal the lighter-colored soil underneath. But if the figures are recognizable only from the air, how and for what purpose were they created?

1. What location gives the cheapest regular rate?
2. Which gives the cheapest great rate?
3. Where is the greatest % of savings?
4. How many different locations are there in Texas?
5. What is the number of people per room?

LOCATION	TWO-PERSON ROOM RATE		SAVINGS	LOCATION	TWO-PERSON ROOM RATE		SAVINGS
	Regular Rates	GREAT RATES™			Regular Rates	GREAT RATES™	
Akron—Cascade Plaza/Downtown, OH	\$ 57.00	\$28.50	50%	Merritt Island—At Cape Kennedy, FL	\$ 54.00	\$43.00	20%
Alexandria—Richmond Hwy, VA	\$ 70.00	\$49.00	30%	Mesa, AZ	\$ 59.00	\$47.00	20%
Brownsville, TX	\$ 46.00	\$36.50	20%	Minneapolis—North/Brooklyn Center, MN	\$ 58.00	\$46.00	20%
Buffalo—Cheektowaga/Gateway, NY	\$ 62.00	\$44.00	29%	Philadelphia—Int'l. Airport, PA	\$ 76.00	\$38.00	50%
Colorado Springs—Central, CO	\$ 78.00	\$46.50	40%	Portland—I-5/South, OR	\$ 54.00	\$43.00	20%
Dallas—Downtown, TX	\$ 64.00	\$44.50	47%	Racine, WI	\$ 50.00	\$40.00	20%
Denver—Colorado Blvd., CO	\$ 66.00	\$33.00	50%	Richmond—Southeast/Bells Rd., VA	\$ 60.00	\$48.00	20%
Frederick, MD	\$ 68.00	\$48.00	29%	Rocky Mount—I-95/Goldrock, NC	\$ 50.00	\$35.00	30%
Ft. Lauderdale—By The Sea/North Beach, FL	\$ 62.00	\$46.50	25%	San Francisco—Int'l Arpt./Crowne Plaza, CA	\$102.00	\$61.00	40%
Houston—Galleria Area/Crowne Plaza, TX	\$101.00	\$70.50	30%	St. Paul—I-94/East, MN	\$ 68.00	\$48.50	28%
Indianapolis—I-70/East, IN	\$ 55.00	\$44.00	20%	Tampa—Int'l. Airport, FL	\$ 98.00	\$49.00	50%
Kansas City—Downtown, MO	\$ 61.00	\$42.50	30%	Tulsa—Central/I-44 & Memorial Dr., OK	\$ 57.00	\$45.50	20%
Los Angeles—Int'l. Airport/Crowne Plaza, CA	\$102.00	\$75.00	26%	Washington—Capitol Beltway, DC	\$ 82.00	\$65.50	20%
Madisonville, KY	\$ 47.00	\$23.50	50%	White Plains—Downtown/Crowne Plaza, NY	\$130.00	\$78.00	40%

Prices quoted are for two adults per room.

In the past two years, the National Institute on Aging has established ten Alzheimer's disease research centers nationwide. Scientists now know that Alzheimer's is a disorder that affects both the chemistry and the structure of the brain. Research suggests that people with Alzheimer's develop abnormalities in the way their brains transmit chemical messages essential to normal functioning. For example, studies of aging monkeys show that experimental drugs that increase chemical transmission can boost memory. Scientists hope that one day similar drugs will be available to humans.

1. What is Alzheimer's disease?
2. What experimental animals are being used?
3. What organization has established research centers?
4. Explain the word abnormalities.
5. What results from the experimental drugs used on the monkeys?

Newspapers and magazines are great sources of useful, relevant materials for transitional adults. Much math reading was included since in the study of math, reading skills are often the biggest stumbling block to success.

Pennsylvania 1987 fishing seasons, sizes, creel limits												
Species	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Trout/Salmon*	7" 3 per day**	30"		17 16 or 500 c.m.		6 per day†		7"	3 per day**†			
Atlantic Salmon	16" 2 per day	30"		17 16 or 500 c.m.		15" 2 per day						
Bass - Largemouth, Smallmouth, Spotted												
Susquehanna River Watershed												
Lakes, Ponds	12" 6 per day†	17 15		12 13		15" 6 per day†						
Rivers, Streams	16" 6 per day†	17 15 2 per day†	12 13		16" 6 per day†							
Bass - Largemouth, Smallmouth, Spotted												
Watersheds other than Susquehanna River												
Lakes, Ponds	12" 6 per day†	17 15		12 13		13" 6 per day†						
Rivers, Streams				10" 6 per day†								
Walleye and Hybrids	18" 14 15 6 per day†				1 2	15" 6 per day †						
Sauger	18" 14 15 6 per day				1 2	12" 6 per day						
†Daily creel limits combined species												
*Except landlocked Atlantic salmon												
**Fall and winter reduced creel season open only in stocked sections of streams and their downstream areas, and all lakes and ponds												
Species	Jan	Feb	Mar	April	May	June	July	Aug	Sept	Oct	Nov	Dec
Muskellunge and Hybrids	30" 2 per day† 14 15				1 2		30" 2 per day†					
Northern Pike	34" 2 per day† 14 15				1 2		34" 2 per day†					
Pickerel	18" 3 per day 14 15				1 2	15" 6 per day				30" 15"		
American Shad	No minimum size 6 per day (Except closed on Susquehanna River and Tributaries)											
Herring	No minimum size No daily creel limit											
Hickory Shad	No minimum size No daily creel limit											
Striped Bass and Hybrids					15" 2 per day							
Panfish					No minimum size 50 per day†							
Bullhead					No minimum size 50 per day†							
Fishball												
NOTE: The Susquehanna River, its branches and all impoundments, with the exception of the Conowingo Dam, is considered a river and not a series of lakes for purposes of this regulation												
***Mud bugs (dragonfly nymphs) unlimited when taken from lakes, ponds, swamps or adjacent areas												

1. What species of fish has no minimum size and no daily creel limit?
What conclusion can be drawn from this information?
2. On April 17, 1987, at what time may a fisherman begin fishing for trout?
3. 3 fishermen are fishing for Northern Pike, Striped Bass, and Panfish. Fisherman #1 caught his daily limit of Northern Pike; fisherman #2 caught his daily limit of Striped Bass; fisherman #3 caught 5 less than his daily limit of Panfish. Which fisherman is going home with the largest catch?
4. A fisherman plans a fishing trip during the months of May-November; his desire is to fish during those months for Pickerel. On a given day, he catches his limit. The sizes of his fish are as follows: 15 inches, 20 inches, 10 inches, 16 inches, and 21 inches. How many pickerel may he keep?

National summary

A small Colorado town was buried under 5 feet of snow and a New Mexico town was virtually cut off Friday by a ferocious storm that howled through the Rockies with strong gusts that dropped wind chills to 70 degrees below zero.

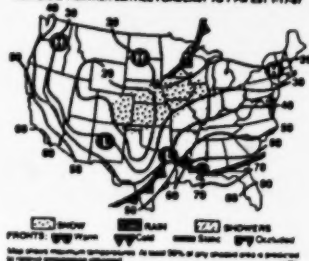
"That is an incredible amount of snow," National Weather Service forecaster Paul Fike said, referring to the 60 inches that fell mostly Thursday in the rural town of Rye in southern Colorado. The weather service also said 61 inches of snow was reported just south of Rye.

"We're fast running out of anyplace to put it," Rye Fire Chief Charles Terrell said. "Everyone is just staying put and digging out today."

No major problems were reported in the rural community with a population of about 200, despite the worst storm there since 1957.

"I moved to Rye because I really like the weather here, but I never counted on this," said resident Kim Surickman, 34, who described the snowfall as chin-deep. "This is a sight. Nobody's going to believe this."

NATIONAL WEATHER SERVICE FORECAST TO 7 PM EST 1-17-87



1. In which area of the country (Central, Northeast, Far West, Southern Florida) will there most likely be snow?
2. What are the expected maximum temperatures in Pennsylvania? In Texas? In Alabama? In Washington (state)? In Florida? In Maine?
3. In general, what weather conditions are likely to exist in areas represented by high pressure? In areas represented by low pressure? What weather conditions might exist when areas of high pressure and low pressure meet?
4. What percentage of any shaded area is predicted to receive the precipitation indicated?
5. In reference to the reading selection above the map, what 2 states received a tremendous amount of snow? What mountain range is associated with those 2 states?
6. Which states are likely to have the following weather conditions in existence:
 - a) Cold, snow, temperatures ranging in the 20's (name one state)
 - b) Cold, clear of precipitation, temperatures ranging in the 30's (name one state)
 - c) Warm, clear of precipitation, temperatures-80's (name one state)

Signers of the Declaration

Of the 55 men who attended the Constitutional Convention, eight had signed the Declaration of Independence 11 years before. The signing took place in the very same building, the State House in Philadelphia. The men were:



George Clymer of Pennsylvania



Ben Franklin of Pennsylvania



Robert Morris of Pennsylvania



George Read of Delaware



Roger Sherman of Connecticut



James Wilson of Pennsylvania



*Elbridge Gerry of Massachusetts



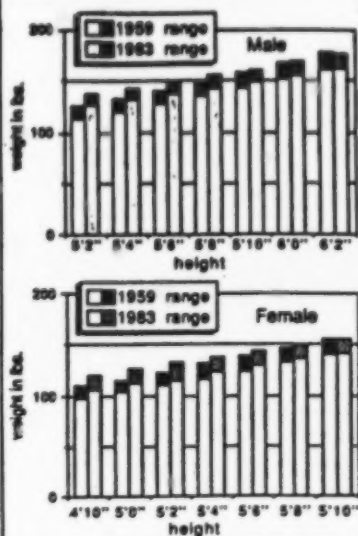
*George Wythe of Virginia

*Gerry and Wythe did not sign the Constitution. Gerry did not sign because it did not have a bill of rights. Wythe left the convention early.



1. Of the representatives from the state of Pennsylvania, which man fits the following description: statesman, public leader, author (Poor Richard's Sayings), publisher, civic leader, inventor (bifocal lenses, stove, lightning rod), and scientist (proved lightning is electricity)?
2. In which state was the Declaration of Independence signed?
3. What conclusion can be drawn from the fact that Elbridge Gerry did not sign the Declaration of Independence?
4. In addition to the Declaration of Independence, Roger Sherman of Connecticut also signed the following great documents: the Articles of Association (1774), the Articles of Confederation (1777), and the United States Constitution (1787). What conclusion can be drawn concerning Sherman's belief in freedom?

Medium Frame Body Weights for Men and Women Over Age 25, 1959 and 1983.



Average American at least 10 percent over ideal weight

CHICAGO (UPI) — The average American is at least 10 percent over ideal body weight, lulled into a false sense of security by "desirable" weight charts that are also a bit on the heavy side, researchers say.

The conclusion by doctors from the Harvard School of Public Health, published in today's *Journal of the American Medical Association*, will likely not go down as easily as last night's dessert.

"No, that won't make a lot of people too happy, I imagine," said Dr. JoAnn Manson of Harvard and the Brigham and Women's Hospital in Boston.

"All the available evidence suggest that minimum mortality occurs at weights that are at least 10 percent below U.S. averages," Manson said. Obesity is medically defined as 20 percent over optimal body weight.

The latest assault on the national waistline comes four years after the great collective sigh and belt loosening of 1983, when Metropolitan Life Insurance Co. revised its weight-for-height charts upwards to accommodate new data.

The Metropolitan chart, based on 4.2 million people who have applied for life insurance since 1950, long has been considered the standard reference for most desirable weight for a person of a particular height, sex and build.

However, Manson and her colleagues said the Metropolitan chart fails to correct for the effects of cigarette smoking, a behavior that tends to keep weight down while disproportionately increasing mortality for lighter weights.

"If you look only at groups of smokers or groups of non-smokers, you see a much stronger relationship between obesity and mortality," Manson said. "The Metropolitan numbers tend to favor heavier people."

Manson said it was impossible for her to determine exact ideal weights without better controlled studies, but that the 1959 Metropolitan charts "are probably closer to it" than the 1983 charts.

Metropolitan officials, however, said the charts were never intended to be taken as hard and fast guidelines for ideal weight, only the weight at which the average person tends to live the longest.

"It's not the perfect thing, but it's one of the best things around," said Stanley Kranczer, a senior demographic researcher for Metropolitan in New York.

1. What is the proper name given to the way in which the height vs. body weight information is presented? Is this known as: a pie chart, a bar graph, an illustration, or a diagram?
2. The average American is at least what percentage over his/her ideal weight?
3. Since 1950, what insurance company has provided the standard reference for the most desirable weight for a person of a particular height, sex, and build?
4. What conclusion can be drawn from the graph concerning the relationship of smokers and non-smokers to obesity?
5. On the height-weight chart for females, in which year (1959 or 1983) was it permitted for a woman of a medium frame to "weigh in" heavier?
6. On the height-weight chart for males, in which year (1959 or 1983) was it permitted for a man of a large frame to "weigh in" heavier?

Other general, social studies and science exercises:

COMPUTER ERRORS

Use the information on page 28 to answer the questions below.

1. What does the author mean by saying in paragraph 1 that computer users sometimes "want to scream back at the screen"? _____

2. According to the author, what is the cause of nearly all computer errors?

3. Which two of the following words best describe the author's tone? Circle your choices.
a. informative b. casual c. annoyed
4. Whom does the author refer to as "we" at the beginning of paragraph 4?

5. When the author says in paragraph 4 that "every new program is full of mistakes," is this a fact that is supported by the text, or is it the author's opinion?

6. In paragraph 5, what does the word *plagued* mean?

7. How is a computer different from a human being in the way it understands messages?

8. Why are computer problems called *bugs*?

9. In paragraph 6, what does the word *subtle* mean? Circle your choice.
a. hard to find b. rare c. awful
10. Think of a new title for this article. Write it on the line provided.

Computers can be frustrating contraptions. You tell them to do a task, and, instead of doing it, they print something impolite, like "ERROR." You give the computer the same command, and it flashes "ERROR" again. Then you begin to want to scream back at the screen.

The worst thing about computer errors is that they are almost always the fault of a human being. Computers rarely make mistakes. They are among the most reliable machines ever built. When you issued your command to the computer, you may have spelled it wrong. For example, instead of typing "PRINT," you may have typed "PRNT." When you tell a computer to "PRNT" instead of "PRINT," it responds with "ERROR." This is the machine's way of saying, "Huh?"

Computers can understand only what you type, not what you mean to type. If you said "PRNT" to your brother, he'd probably figure out that you meant "PRINT" (though he still might wonder what you wanted him to do). But a computer takes everything literally, letter for letter and word for word.

The people who write the programs for our computers sometimes get even more frustrated than we do. When the programmer commands a computer to run a new program for the first time, plenty of "ERROR" messages appear on the screen. Every new program is full of mistakes and problems. Programmers call these mistakes *bugs* for an interesting reason.

This term comes from a problem that plagued one of the world's first computers. The computer wasn't working right, and it took the technicians a long time to find out why. Then they discovered that a moth had crawled into the machine and had died when it touched some exposed wires. The dead moth was causing electrical problems that scrambled the computer's thinking.

Debugging a computer program is almost always hard. Bugs in a program can be so subtle that they create problems for a very long time. Many programmers, after staring at a program for hours, have cried, "There's no reason for this not to work!" But there always is a reason. Somewhere in the program, a human being has made a mistake—has told the computer to do the wrong thing at the wrong time—without knowing it.

Adapted from:

Mary Packard,
Macmillan Instant
Activities Program,
Vocabulary,
Pgs. 28-29.

CAPTAIN COOK'S LAST VOYAGE

Captain James Cook, one of history's greatest explorers, was also a fine writer, thinker, and scientist who studied the people and the lands he visited. In a journal that he kept, he recorded everything he saw and thought.

In July 1776, Captain Cook set sail from England for the South Pacific on what was to be his last voyage. The expedition got off to a happy start when Cook's ship landed at one of the Friendly Islands on May 16, 1777. The natives were indeed friendly and entertained Cook and his crew with colorful boxing matches.

By September of that year, Cook was on the island paradise of Tahiti. Impressed by the easygoing way of life of the Tahitians, who had everything they needed without working for it, Cook remained here for the rest of the year.

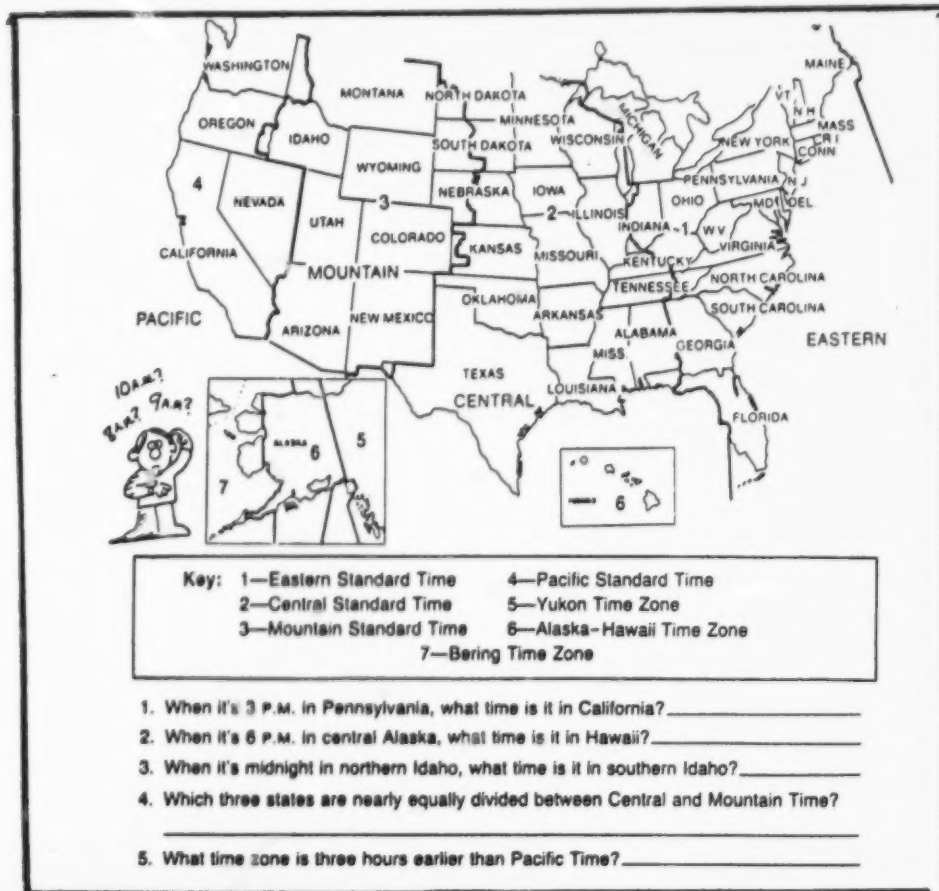
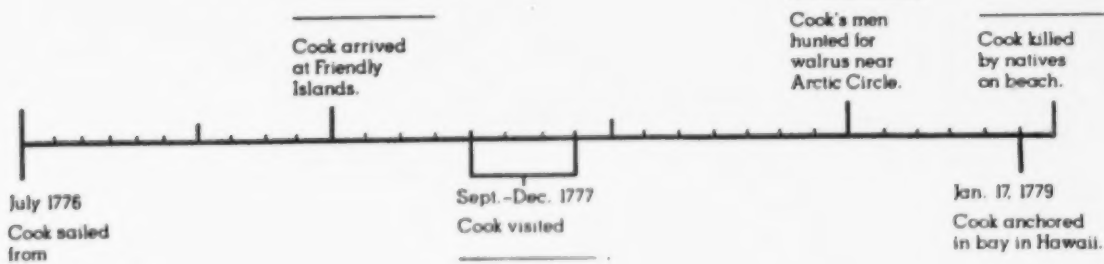
Next Cook headed north until he came near the Arctic Circle. Here, on August 17, 1778, the crew went walrus-hunting for fresh meat to add to their dwindling food supply. "After they [the walruses] had been once fired at," wrote Cook in his journal, "they would tumble into the sea, in the utmost confusion."

After visiting the Aleutian Islands in October, Cook sailed south once more to the last place he would ever visit. On January 17, 1779, his ship anchored in a bay in the Hawaiian Islands.

At first, the Hawaiians were friendly to their strange visitors. But as the weeks passed, they grew tired of sharing their food with the Englishmen. Finally, on February 14, the angry natives attacked the crew onshore. As the men ran for their boats, a native stabbed Captain Cook in the back. He died soon after—a sad ending to an exciting life of adventure and discovery.

Adapted from:

Diane Sylvester,
Macmillan Instant
Activities Program,
Reading.
Pgs. 43-44.



Adapted from:

Steve Otfinski,
Macmillan Instant
Activities Program,
Social Studies.
Pg. 31.

CLOUD GAZING

Read the selection below about clouds. Then use this information to complete page 42.

Have you ever lain on the grass on a lazy summer's afternoon gazing up at the clouds? If you have, you've probably noticed the many different shapes clouds can take. Clouds can look like boats, animals, cars, or even people. Meteorologists, or weather scientists, have classified clouds not by what they resemble, but by their size, shape, and height above the earth.

Cumulus clouds get their name from the Latin word *cumulus*, meaning "a pile or heap." Cumulus is a good name for these fluffy, white piles of clouds that look like great puffs of cotton floating across the sky. They are known as vertical clouds because they move in a vertical pattern from 1,600 to over 20,000 feet above the earth (490-1,600 m). Sighting cumulus clouds usually means fair weather is here to stay.

Seeing **nimbus** clouds, on the other hand, means just the opposite. *Nimbus* is Latin for "rainstorm," and that's what these dark-gray clouds deliver. Nimbus clouds are low clouds, ranging from about ground level to 6,500 feet (1,980 m).

Stratus clouds are also low clouds, with the same height range as nimbus clouds. The Latin word *stratum*, meaning "sheetlike," is a good name for these layered clouds. Although dull-gray stratus clouds can make the sky appear the color of lead, these clouds look worse than they are. Because thin stratus clouds have little vertical movement, only a drizzle of rain can fall from them.

Finally, there are **cirrus** clouds, from the Latin *cirrus*, meaning "curl." These curly, white, leatherlike clouds are high fliers. They range from 20,000 to 40,000 feet in the sky (1,600-12,200 m). Since at those heights the temperature is below freezing, cirrus clouds are made up entirely of ice crystals. Because they are blown about by cold winds into line strands, cirrus clouds are sometimes called "mares' tails."

Next time you cloud-gaze, try to pick out a cirrus from a cumulus. But watch out for nimbus clouds! When you see them roll in, it's time to head indoors.

Cloud Chart

Name of cloud	Latin word name comes from	English meaning of Latin word	Physical features	Height classification (vertical, low, or high)	Height in feet (m) above the earth
	<i>cumulus</i>				
nimbus					
		sheetlike			
				high	

SUMMING UP SNAKES

Read paragraphs A to E below. Then use this information to complete page 49.

A. Snakes are among the strangest animals on Earth. Since they have no ears, they don't hear very well, although they are able to detect sound vibrations of low frequency. Have you ever seen a snake charmer coax a snake out of a basket by playing a flute? It isn't the music of the flute that charms the snake into rising but the motion of the flute itself as the charmer moves it back and forth.

SUMMING UP SNAKES

Read paragraphs A to E on page 48. Then read the sentences summarizing paragraphs A to D below. For each paragraph, choose the sentence that best sums up the main idea. Circle the letter to the left of the correct answer. Then write your own summary of paragraph E on the lines provided. Include only the main ideas and use your own words. Continue on another sheet of paper if necessary.

1. paragraph A
 - a. Snakes are strange animals with no ears.
 - b. Snakes have no ears but can detect sound vibrations. They can't hear a snake charmer's music but follow the movement of the flute.
 - c. Snake charmers trick people into thinking snakes hear the music when it's really the movement of the flute that charms the snakes.
2. paragraph B
 - a. Snakes can't close their eyes because they have no eyelids, but they do have a clear scale that covers and protects their eyes.
 - b. A scale like a windowpane keeps grass and twigs from damaging a snake's eyes.
 - c. Snakes and fish have no eyelids and must sleep with their eyes open.

Snakes lack movable eyelids, so that even when they have no eyelids, you might expect a passing speck of dirt as well as to greater nature has provided snakes with a tough, leathery scale. This scale works like a windowpane, protecting the snake's eyes.

Adapted from:

Steve Otfiniski,
Macmillan Instant Activities
Program, Reading and
Reporting.
Pgs. 48-49.

In science, as well as other areas, terminology charts are very useful in eliminating fear of new vocabulary.

PLANT PRODUCTION

Adapted from:

Margo Clung,
Macmillan Instant
Activities Program,
Science Experiments
and Nature Studies.
Pg. 26.

- | | |
|-------------------|--|
| 1. carbon dioxide | a. The process green plants use to produce basic foods for themselves. |
| 2. photosynthesis | b. A gas in the air which is given off by the leaves of green plants. |
| 3. oxygen | c. Plants which contain chlorophyll and combine it with the sun's energy. |
| 4. sun | d. The substance that combines with the sun's energy to produce carbohydrates. |
| 5. water | e. The source from which green plants get their energy. |
| 6. chlorophyll | f. The basic foods created by green plants. |
| 7. green plants | g. An element other than the sun's energy that makes it possible for green plants to produce their own food. |
| 8. carbohydrates | h. The gas that plants need along with water to be able to accomplish photosynthesis. |

THE FOOD WEB

Adapted from:

Margo Clung,
Macmillan Instant
Activities Program,
Science Experiments and
Nature Studies.
Pg. 41.

1. A consumer is a living thing that
 - a. eats plants and animals
 - b. gives off energy
 - c. decomposes rock
2. A producer is a living thing that is able
 - a. to eat plants
 - b. to make its own food
 - c. to create other plants
3. An herbivore is a consumer that eats
 - a. only plants
 - b. only animals
 - c. plants and animals
4. A decomposer is a living thing that feeds on
 - a. plants
 - b. animals
 - c. wastes and dead organisms
5. To decay means to
 - a. be very fresh
 - b. become rotten
 - c. be dead
6. A carnivore is a consumer that eats
 - a. vegetables
 - b. plants
 - c. animals
7. A living thing that feeds on waste and dead organisms is
 - a. mold
 - b. a fruit
 - c. a carnivore
8. A consumer that eats both plants and animals is
 - a. a carnivore
 - b. a herbivore
 - c. an omnivore

Students at all levels are encouraged to write as well as answer questions objectively.



The lore of black ice

By Max Gunther

It happens only once every few years. It's such a unique and gorgeous phenomenon that it sends skating enthusiasts into transports of exaggerated delight.

Black ice! The phrase means to a lake and pond skater what perfect wave means to a surfer. It refers to the absolutely flawless ice-skating conditions that are encountered only

a few times in a lifetime and talked about for years afterward.

When black ice occurs in my part of Connecticut, it pulls thousands of people from in front of their fireplaces into the frigid air. Even people who haven't skated for years on lake or rink grab their ice skimmers.

Black ice develops when three weather conditions come together at exactly the right time, in exactly the right way. First, there must be a long period of subfreezing temperature. A short period will freeze small, shallow ponds, but it's the big, deep lakes we're talking about and it takes a lot of freeze to make them hard. Second, there must be very little wind while the surface is solidifying; otherwise the ice will have ridges and ruffles. Third—and this is the hardest one—there must be no snow while all this is going on.

The result? Ice that's as black as onyx and smooth as glass. It looks black because there are no surface imperfections to catch and reflect light. And it's transparent.

The first few minutes of skating on it are rather frightening because you can't actually see the surface that's supporting you. It's truly like skating on air.

We live near a seven-acre lake and every winter we wait, and hope, and pray for black ice. More often than not we are disappointed although a few winters back our dream came

continued

Write a summary of this article.

Be sure to include these main points:

What is black ice?

How is it formed?

Why is black ice so unusual?

What is sail skating?

true. It was an unusually dry January throughout the northeast. There was no snow and it was cold. We watched and waited. The ice slowly thickened. Little kids stood around the edges of it day after day examining it hungrily. Fathers went down to test it, stepped on it near the inlets where the water is warmest, listened to it crack, and mournfully announced, "No, not yet."

Finally, the day came when the black ice looked prime. We skated carefully around the shallows at first, then grew bolder. Inch by inch, foot by foot, we proceeded until at last the whole glorious seven acres were ours. We enjoyed eight days of unadulterated skating bliss.

Only one thing was lacking this one time: wind. We didn't want wind while the ice was firming, but we wanted it afterwards. Why? So we could sail skate.

A skater's sail is anything that can be held in hand that'll catch the wind. Even an old umbrella will serve if the wind is strong enough. The experience of gliding over black ice at thirty miles an hour, virtually powerless to stop, is one of the most delightful experiences on earth.

For eight days we skated during almost every spare daylight hour. Jobs, chores and school homework went to heck. Knees and elbows were bruised, foot muscles ached, ankle and leg tendons stiffened—but this was the price to be paid and we never considered it anything but a bargain.

"Daddy, my knee hurts!" one little girl wailed tearfully after a spectacular fall. "Lean on me and I'll take you home," her father proposed. The suggestion was so ludicrous that she broke into peals of laughter as she skated away over the dark, glassy expanse.

Our ice was killed by an early January thaw that year and we've been waiting for black ice ever since. Well, maybe this year. ■

Math Ready

The subject of math is often an area of great difficulty for transitional students. In fact, in regular ABE classes our students request tutors for math more than for any other subject. Even though math is often frustrating for our students, once they achieve competencies in a particular math skill their confidence is raised greatly.

At the transitional level our aim again was to establish a base of skills which will ready students for regular ABE math classes. Towards this goal we first must be assured that students understand and can perform the basics of addition, subtraction, multiplication and division. Working 1 on 1 with tutors we find flashcards, calculators, and general practice exercises useful.

Beyond basic mechanics we stressed the reading of math as a primary goal. Math oriented reading selections were integrated in the Reading Ready exercises and within the math setting these were developed further.

Tutors worked with students on approaching word problems so students can determine what is given, what is being asked and how to proceed.

HOW TO APPROACH WORD PROBLEMS

You can more easily and efficiently solve word problems if you follow a few simple rules. Begin by asking yourself several questions.

WHAT FACTS ARE GIVEN?

WHAT CAN BE DETERMINED FROM THE FACTS PROVIDED?

HOW CAN YOU USE THE FACTS THAT ARE GIVEN TO FIND THE ANSWER TO THE QUESTION ASKED?

IS YOUR ANSWER LOGICAL? PRACTICAL? REALISTIC?
DOES YOUR ANSWER MAKE SENSE?

More Hints
for Solving Word Problems

BE READY TO THINK.

TAKE YOUR TIME.

HAVE THE PROPER EQUIPMENT: PAPER, PENCIL, ETC.

READ EACH PROBLEM TWICE: FIRST FOR THE GENERAL IDEA AND FOR GENERAL INFORMATION, THEN A SECOND TIME FOR DETAILS.

READ THE PROBLEM AGAIN WHEN YOU HAVE FINISHED TO MAKE SURE YOU HAVE ANSWERED THE QUESTION ASKED.

Adapted from:

Stephen E. Switzer,
Mastering Word Problems.
Pg. 1

We worked to develop a math vocabulary with students which would alert them to possible approaches to problems.

Finding the Key Words

When reading and working problems, make certain that you can identify the most important words. If you can determine these key words, work with all the facts given, and clearly comprehend what you are being asked; you can solve the problem.

The first step in successfully solving word problems is to read carefully and slowly and to focus on the key words.

Underline the key words in each problem below and then work it to determine the correct answer.

1. Three addends are given: 346, 472, and 458. What is the sum?
2. A problem states that the subtrahend is 489 and the minuend is 678. What is the difference?
3. Find the product of 403 and 752.
4. By how much does 973 exceed 185?
5. Gasoline has become much more expensive. Last year the number of cars sold in Pontiac County was 57,325. The sale of cars decreased this year by 12,981. How many cars were sold this year?
6. Farmer Perkins had a record wheat crop last year with a total of 10,147 bushels harvested. This year the blight bug caused a great deal of damage to his wheat field. He only produced 8,269 bushels. His crop diminished by how many bushels?
7. The dividend is 4,214. The divisor is 7. What are the quotient and the remainder?
8. Find the average of 28, 28, 42, 56, 56, 98 and 7.
9. If Jim's uncle is two and one-half decades older than Jim and Jim is 14; how old is Jim's uncle?
10. Karen said, "the sum of the prime numbers between 11 and 20 is greater than the sum of the composite numbers". Is she correct?
11. A famous phrase in Lincoln's Gettysburg Address is "fourscore and seven years ago". How many years was he referring to when he made this statement?
12. Mrs. Gilman bought a sailboat for \$1500 and then sold it at a \$300 loss. What was the selling price?
13. Mr. Robnett makes a monthly salary of \$1250. What is his annual salary?
14. Carolyn sold her ten speed bicycle for \$65. She made a profit of \$17. How much did she originally pay for the bicycle?
15. The seventh grade put on a school play. They bought some materials for costumes and props which cost \$48.40. They were very successful in selling tickets. The class took in \$218. How much did their revenues exceed their expenses? What was their profit?

Adapted from:
Stephen E. Switzer,
Mastering Word
Problems.
Pg. 2.

KEY WORDS AND PHRASES FOR ARITHMETIC OPERATIONS

ADDITION

SUM
TOTAL
PLUS
INCREASE
MORE THAN
GREATER THAN
EXCEED
AND
MAKE LARGER
RAISE

SUBTRACTION

DIFFERENCE
FEWER
LESS THAN
REDUCE
DECREASE
DIMINISH
MINUS
TAKE AWAY
LOWER

MULTIPLICATION

PRODUCT
OF
AT
TIMES

DIVISION

QUOTIENT
RATIO
GO INTO
CONTAINED
AVERAGE

Teaching students the tricks of analyzing and estimating word problems provides them with confidence to attack more difficult problems.

How to do Word Problems

To help you do word problems:

1. **Make the numbers in the problem easier.** Change the numbers in the problem to 2 and 4. This will help you to decide whether to add, subtract, multiply or divide. See example 1 below.
2. **Draw a picture of the problem using smaller or easier numbers.** What's the answer? How did you get the answer? Did you add? Subtract? Multiply? Divide? Do the same thing with the real numbers in the problem.
3. **Round off the numbers and estimate an answer.**
4. **Work out the problem.**
5. **Reread the problem. Is your answer reasonable?** (Is your answer close to your estimate?)
6. **Check your computation.**
7. **Label your answer.**

Adapted from:

Dick Holmes,
Mathematics 5
Problem Solving
Activities.

Problem Solving

1. **Story problems** Most problems can be written as arithmetic sentences, or equations. (131-133)

Seven more books than I read last year is twenty-five.

$$n + 7 = 25$$

2. **Solving story problems** Write the equation. Solve it. Then write the answer. (133, 157, 170)

A club had 12 members. Then other boys joined it, and there were 19 members. How many boys joined?

$$12 + n = 19 \quad n = 19 - 12 \quad n = 7$$

7 other boys joined the club.

3. **Using more than one operation** Write one equation for problems involving more than one operation. (Remember: The () mean do this operation first.) (134-141, 173)

On 5 days, Mary practiced her piano lesson for 50 minutes, 55 minutes, 60 minutes, 35 minutes, and 40 minutes. On an average, how many minutes did she practice each day?

$$\begin{array}{r} (50 + 55 + 60 + 35 + 40) \div 5 = n \\ 240 \div 5 = n \\ 48 = n \end{array}$$

Mary practiced an average of 48 minutes a day.

1. **Addition** To join unequal sets, you add their numbers. (25, 29, 54, 68, 86, 134-136, 209, 290)

Paul bought a sweater for \$5.98, a pair of gloves for \$2.50, and a tie for \$1.49. How much did he spend in all?

$$\begin{array}{r} 5.98 + 2.50 + 1.49 = n \\ 5.98 + 2.50 + 1.49 = 9.97 \\ \quad \quad \quad + 1.49 \\ \hline \$9.97 \end{array}$$

Paul spent \$9.97.

2. **Subtraction** To separate a set, or to compare sets to find by how much they differ in number, you subtract their numbers. (38, 39, 40, 54, 86, 134, 137, 138, 223, 290)

Frank's and Terry's combined weight was 125 pounds. Frank weighed 66 pounds. How much did Terry weigh?

$$125 - 66 = n \quad 125 - 66 = 59$$

Terry weighed 59 pounds.

Sally had 157 pennies in her collection, and Carol had 98 pennies in hers. How many more pennies did Sally have than Carol?

$$157 - 98 = n \quad 157 - 98 = 59$$

Sally had 59 more pennies than Carol had.

Adapted from:

E.T. McSwain,
et al,
Arithmetic 5.
Pgs. 330-331.

3. **Multiplication** To find how many in all of several sets of equal size, you multiply the numbers. (34, 55, 60, 64, 69, 86, 135, 137, 139)

The baker delivered 235 loaves of rye bread to his customers each day. How many loaves did he deliver in 15 days?

$$15 \times 235 = n \quad 15 \times 235 = 3525$$

He delivered 3525 loaves.

4. **Division** To find out how many sets of equal size, or to find how many in each set of equal size, you

divide the numbers. (76, 80, 86, 96, 101, 136, 138, 139, 152, 178)

Mrs. Lang invited 24 people to a party, seating 4 people at each table. How many tables did she have?

$$24 \div 4 = n \quad 24 \div 4 = 6$$

She had 6 tables.

The 30 pupils were divided into 5 groups of equal size. How many were in each group?

$$30 \div 5 = n \quad 30 \div 5 = 6$$

6 pupils were in each group.

Identifying the Correct Facts to Solve A Problem

Using the Facts to Solve Problems

Read each word problem carefully. Determine which facts are needed to solve the problem. Use only those facts. Look at the answer to see if it makes sense and is practical. Think through each problem before trying to solve it.

Work each problem below and place your answer on the blank space provided.

- When watering her garden, Mrs. Kisber used a new flexible, high pressure hose which allowed her to use 16 gallons of water per minute. If the length of the hose is 72 feet, how much water did she use in $6\frac{1}{2}$ minutes.
- Mr. Middleton owns a construction company. He does a lot of foundation work. He received 1,600 pounds of sand in a 2-ton dump truck. The sand was put in 40 lb. bags for winter use. How many bags did the load fill?
- Scientists have recorded that hummingbirds are beating their wings 72 times a second. They also have recorded that a hummingbird can fly as far as 500 miles in one night. Assuming that their data is correct, how many times would a hummingbird beat his wings in one hour?
- A car used 130 gallons of gasoline on a $6\frac{1}{2}$ hour trip. The total distance of the trip was 365 miles. Using this information determine the average number of gallons used in one hour?
- Tony's new 2 ton truck carries 40 bushels of strawberries. How many quarts would this be?
- Sara got a summer job at the local library as an assistant. She worked 30 hours per week. Sara made \$2.10 per hour. She processed 1,925 books a week. How much did Sara earn each week?
- Mike is a broad jumper. He can jump 16' 10". His friend Grant is also a broad jumper. He can jump 15' 18". Knowing that the school record is 16' 11", how much farther can Mike jump than Grant?
- The Scottsview daily newspaper has 82 pages and the Sunday edition has 420 pages. If the daily paper costs 15¢ and the Sunday edition costs 75¢, find the cost of taking the newspaper for two weeks?
- A ferryboat went to Dream Island three times each day on a round trip basis during the months of June, July and August. The round trip fare is \$4.50 per person. If the Emerson Junior High sixth grade which had 65 class members took a round trip excursion, what would be the total cost?
- The distance between St. Louis and Denver is approximately 850 miles. If the Carltons leave for their family vacation at 6:00 a.m. and arrive at 12:00 a.m., how long did their trip take?

Adapted from:

Stephen E. Switzer,
Mastering Word
Problems.
Pg. 13.

Once a variety of word problems are manageable by transitional students they are indeed math ready and generally with continued tutor support, can enter ABE classes.

UNIT 13 Organizing For Logic Problems

Some problems require several conditions to be true.

Problem:

Write the numbers 1 to 6 in the triangles so that the numbers on each side add up to 9. Use each number only once.



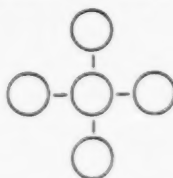
Solution:

The three numbers at the vertices of the large triangle count toward the sum on 2 sides. The large numbers (4, 5, and 6) cannot be used at the vertices since the desired sum is 9.

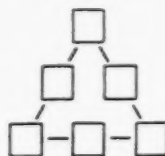
Try 1, 2, and 3 as the numbers at the vertices. Then place 4, 5, and 6 in the empty triangles so the sum in each row is 9.



1. Find a number between 70 and 95, that is divisible by 2 and 9 but not by 5.
2. Write the numbers 10 to 14 in the circles so that the sums of the numbers across and down are the same. Use each number only once.



3. Find a number between 625 and 635 that is divisible by 2 and 5 but not by 9.
4. Write the numbers 4 to 9 in the squares so that the numbers in each row add up to 21. Use each number only once.



5. Find all numbers that are less than 195, more than 65, even, and multiples of 9.

Adapted from:
Dick Holmes,
Mathematics 5
Problem Solving
Activities.
Pgs. 50-51.

Planet	Distance from Sun (miles)	Diameter (miles)	How many moons?	Temperature (F°)		Days to orbit the Sun
				Hottest	Coldest	
Mercury	36,000,000	3,010	0	780	-200	88
Venus	67,270,000	7,610	0	950	869	225
Earth	93,000,000	7,918	1	136	-127	365
Mars	141,710,000	4,140	2	52	-190	687
Jupiter	483,880,000	86,900	14	-100	-200	4,332
Saturn	887,140,000	71,500	10	-200	-300	10,826
Uranus	1,783,980,000	29,500	5	-300	-400	30,676
Neptune	2,795,460,000	31,500	2	-350	-450	59,911
Pluto	3,675,270,000	1,800	1	-400	-450	90,824

Adapted from:

Dale Harder,
Word Problems 6,
Pg. 6.

1. How much farther from the Sun than Venus is Earth?
2. How much bigger is Earth than Venus? (diameter)
3. How many moons are there in our Solar System?
4. Venus is how much hotter than Pluto?
5. Earth is how much bigger than Pluto? (diameter)
6. Earth is how much farther from the Sun than Pluto?
7. How much colder does it get on Pluto than on Earth?
8. How many degrees between the hottest and coldest day on Mercury?

Multi-Step Problems

Some problems require two or three steps in order to be solved.

Problem:

A paper boy paid the publisher \$0.19 for each paper. He sold the papers to his customers for \$0.25 each. How much money did the paper boy make if he delivered 40 papers?

Solution:

Step 1:

Subtract to find out how much money was made on each paper.

$$\$0.25 - \$0.19 = \$0.06$$

Step 2:

Multiply to find out how much money was made on 40 papers.

$$40 \times 0.06 = \$2.40$$

He made \$2.40.

Adapted from:

Dick Holmes,
Mathematics 5
Problem Solving
Activities.
Pg. 42.

Solve.

1. The school football team scored 1 converted touchdown (7 points) and 1 field goal (3 points) in each quarter of their final game. How many points did the team score in the game?
2. Mr. Smed bagged apples and oranges by the dozen for his store. He had 168 apples and 228 oranges to put in bags. How many bags did Mr. Smed need?
3. A baker sells muffins in packages of 6 for \$3.60 each. How much money does the baker receive from selling 72 muffins?
4. A school newspaper has 12 pages with 4 columns on each page. Each column has 55 lines of print. How many lines of print are in the entire newspaper?

Co-ordination

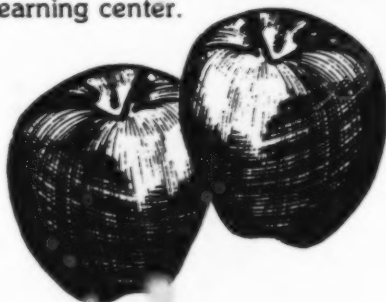
The "Ready-Set-ABE" program was co-ordinated with the Mifflin County Library Literacy Program. There exists a close working relationship presently between our ABE program and the literacy program. Referrals are made from our program to the literacy program and vice versa. The need for materials to bridge the gap between the literacy program and our ABE classes has been noted by supervisors of both programs. Input for this proposal was provided by Jane Hollister, former Co-ordinator of the Mifflin County Library Literacy Program and Cathy Forsythe, present Literacy Co-ordinator. Both enthusiastically support the need for special attention to be focused on the transitional student. Without such a strong, working relationship between our ABE program and the area's literacy program, "Ready-Set-ABE" would not have been nearly as successful as it was.

Public Relations

Public Relations for "Ready-Set-ABE" concentrated on reporting of funding for this grant in the media. When the program began in August '86 a press release was prepared and distributed for the media describing the origin of the funding and the goals and purposes of the training program. The information stressed the public service aspect of the program, i.e. that "Ready-Set-ABE" would help to better serve adults of Mifflin County move from the literacy up to the ABE level of instruction.

"Ready-Set-ABE" enjoyed the same degree of successful media coverage as our other adult programs at the Adult Education T.I.U. Center/Juniata-Mifflin Area Vocational-Technical School. The local media has been co-operative and enthusiastic in reporting of the progress of our programs as they have grown.

At the Adult Education Center our motto is:
It's Never Too Late to Learn. Our student's
ages range from 17 to 70. Join the excitement
of our learning center.



The Adult Education Center in the Vo-Tech
School has classes in Adult Basic Education
(ABE) and General Education Development
(GED) for any area adult. Prepare for the GED
test or brush up in any area you wish. Classes
are small, informal and FREE. Days or
evenings.



READY-SET-LEARN

A special program new this year to provide
tutors to help you get ready for GED classes.
Extra help one-on-one is FREE to you at the
Adult Center. Come see us or call 248-4942.
FREE.

Additional Funding Allows For Increased Adult Ed Programs

By Joe Cannon

There has been a lot of emphasis in the country lately regarding adult education and adult literacy problems. The problems also exist quite heavily here in the Mifflin-Juniata Counties area.

However, efforts to combat those problems are beginning to pay off, according to Carol Molek, coordinator of the Adult Education Center at the Juniata-Mifflin Counties Vo-Tech School.

"We have several new programs to offer this year thanks to some special funding we've received," Molek said in describing what her group has to offer.

During an interview with the *County Observer*, Molek outlined seven programs that will be offered to adults wishing to enroll in projects ranging from GED diplomas to job search skills.

"One of the new programs this year," she said, "is the Ready-Set-Learn Program, which is targeted for those wishing to work toward a GED diploma but who aren't quite ready for that type of material. This program will help those people ease into the GED program. Also in this program, we get referrals from the library's Literacy Program. The program will help students adapt to the change from the literacy program to the Adult Basic Education Program. We have four or five persons signed up for this one already."

Another new project of adult education, Molek said, is the Writing Wheel.

"This one is open to anybody," she said. "It's for improving organizational and communication skills in writing for adults. This project grew off a special writing workshop we had last year. It's also a very timely program because

starting in 1988, the GED tests will require students to complete a writing sample. So this will be a good preparation for that."

The Drop-In Program is also something new.

This particular program is a Job Training and Partnership Act funded program that is aimed specifically for 18 to 21 year old drop-outs," Molek said. "The program is three-fold. First, the person must be enrolled in a GED program. Second, they must also be in a job search program. And third, if eligible for this program, they will be placed in a part time job while they are continuing their GED studies for a period of not more than 15 weeks. So, by the time they're done with this program, they'll have their GED diplomas, job search experience and actual job skills."

A program that started last year will also be returning for an encore, Molek said.

"The Job Search Program," she explained, "is a continuation from last year. It has received separate funding this year and is open for anybody to enroll in if they're looking to improve themselves. That's really nice because last year we had to turn some people away and this year we don't have to."

Molek said that all of the above

programs, with the exception of the Drop-In Program, are Tascara Intermediate Unit funded programs.

Another program being offered at the adult learning center, funded by the Vo-Tech School, is one called Project Re-Entry.

"This program," Molek noted, "is designed for single parents or displaced homemakers. It is two-fold in that we can provide academic and professional counseling and training. There is also funding available to help pay some tuition costs for training school and for child assistance, which is very important for these types of people. We've been trying hard to obtain funds for this type of program because we feel there is a need to address the people with these specific needs."

In addition to the old and new programs listed above, Molek said the GED Alumni Association is continuing again this year.

She added that all of the above listed programs have no start time or finish time limitations.

"Everything is open entry and open exit," she said.

For further information on these adult learning opportunities and on the General Education Development program, contact Molek at 248-4942.

the Adult Education Center, 248-4942.

Anyone interested in helping tutor someone seeking a high school diploma come to Tutor Training Workshop 12:30-3 p.m. Monday, Nov. 10 or 6:30-9 p.m. Tuesday, Nov. 11 at the Adult Education Center, 248-4942.

TUTORS NEEDED - Would you like to tutor an Adult Learner seeking a high school diploma? Help someone make up skills missed when leaving school. Tutor Training Workshop Monday, November 10, 12:30 to 3 p.m. or Tuesday, November 11, 6:30 to 9 p.m. at the Adult Education Center, 248-4942. (11-5)

TIU launches tutor training

LEWISTOWN — The Tuscarora Intermediate Unit No. 11's Adult Education Center at the Juniata-Mifflin Area Vocational-Technical School is launching a Tutor Training Program.

The program is designed to recruit area volunteers to work as classroom teacher aides and one-on-one tutors for adults studying to get their General Education Development high school equivalency diplomas. Volunteers are needed to work with adult students attending GED classes at the Adult Center.

In order to successfully study for the GED exam, adults attending these classes sometimes need more individualized attention than one classroom teacher can effectively provide. Students' needs range from a basic review of reading, English, and math skills to encouragement to keep plugging away.

Carol Molek, adult center supervisor, 40 percent of Mifflin County adults do not have a high school diploma. For many of these individuals, lack of a diploma sometimes stands in the way of finding steady employment, enrolling in training programs, helping their children with homework, or simply feeling good about themselves.

To train volunteers to work with GED students, the Tutor Training Program will present 2 workshops. Dates and times are: Monday, November 10 — 12:30 to 3 p.m. or Tuesday, November 11 — 6:30 — 9 p.m. The workshop will consist of an overview of program and student needs, GED test familiarization, and a mini-review of reading, English, and math competencies.

In addition to helping GED students achieve their goals, volunteers who participate in the Tutor Training Program will find attending the workshop and working with an adult student excellent ways in which to brush-up on their own English and math skills.

To register for the Tutor Training Program, call the Adult Education Center at 248-4942.

Sentinel 10/31/86

Adult Education Center Looking For A Few Good Tutors

Observer 11/5/86

The Tuscarora Intermediate Unit No. 11's Adult Education Center at the Juniata-Mifflin Area Vocational-Technical School is launching a Tutor Training Program to recruit area volunteers to work as classroom teacher aides and one-on-one tutors for adults studying to get their General Education Development (GED) high school equivalency diplomas. Volunteers are needed to work with adult students attending GED classes at the Adult Center.

In order to successfully study for the GED exam, adults attending these classes often need more individualized attention than one classroom teacher can effectively provide. Students' needs range from a basic review of reading, English, and math skills, to encouragement to keep plugging away at that sometimes elusive goal — the GED diploma.

According to Carol Molek, supervisor at the Adult Center, 40 percent of Mifflin County adults do not

have a high school diploma. For many of these individuals, lack of a diploma often stands in the way of finding steady employment, enrolling in training programs, helping their children with homework, or simply feeling good about themselves.

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In addition to helping GED students achieve their goals, volunteers who participate in the Tutor Training Program will find attending the workshop and working with an adult student excellent ways in which to brush-up on their own English and math skills.

To register for the Tutor Training Program, call the Adult Education Center at 248-4942.

Evaluation/Conclusions - Kenneth Calkin, Project
Director

Evaluation was made at mid-year and the end of the program to make sure specific goals were met. According to the evaluation criteria established in the proposal, all goals were achieved:

- 1) tutor training packet was produced and utilized
- 2) 3 exercise booklets were produced and utilized
- 3) at least 10 transitional ABE students were integrated into regular ABE classes (18 actually enrolled)

18 students participated in the program (10 planned)

of these 18 -

5 consistently (75% of time) participated in tutoring sessions

7 consistently (75% of time) participated in tutor sessions plus class work

4 participated in tutor training sporadically in and out because of personal problems

0 participated in classes only

12 gained at least + 1 grade level

5 entered other training programs

6 found employment (better employment)

2 early separations (1 moved from area)

1 received GED diploma

4 successfully completed some GED testing

We were very pleased with our participants' accomplishments. Student retention in this group ran 67%. 12 of the 18 students were actively involved from the time they enrolled until the end of the program. Another 4 of the 18 (22%) participated to some degree but left the program temporarily because of personal problems. We expect these participants to re-enroll and are in touch with them by phone on a regular basis.

Our previous retention rate with students in the transtional category was less than 50% so the success of this group was particularly rewarding. All 12 of those who maintained a high level of involvement increased their performance level by at least 1 grade level - most gained much more ground.

Three students in the Ready program had come to us in 1985 and were referred to the literacy program because of extremely low reading levels. They came back to us this fall entering the Ready program and working with tutors and in classes. One of these three obtained her GED. The other 2 have successfully completed some testing and are still consistently working with tutors. In addition, 2 other Ready students have taken some GED tests successfully.

The Ready program as well as our other ABE programs are integrated with our Center's Job Search programs. We view job readiness training as a valuable service we offer our clients. Five Ready students participated in Center Job Search activities and 6 (5 in Job Search Workshops and 1 found employment independently) found employment during their participation.

The fact that only 2 of 18 students were early separation dropouts seems to reflect the positive outcomes which occur when intense student/instructor/tutor contact is developed and maintained. Students who are transitional tend to respond very favorably to all aspects of this program.

**"Ready-Set-ABE" Participants' Progress
and Termination Data**

	consistently (75%) worked with tutor	consistently (75%) worked with tutor and in class	classes only	gained at least + 1 grade	entered other training	found/bettered employment	rec. GED diploma	early separation	worked sporadically (at least 50%) with tutor - left for personal reasons with plan to come back	some successfully completed GED testing
1. T. McCrory				x					x	
2. B. Eddinger		x		x						x
3. D. Howell		x		x						x
4. C. Earnest								x		
5. J. Huff	x			x	x	x				
6. T. Judge	x			x						
7. J. Marker									x	
8. V. Ridley		x			x	x				
9. V. Snook	x			x	x	x				x
10. B. Stimely		x		x			x			
11. A. Wallick					x	x			x	
12. M. Groce	x			x						
13. T. Forshey								x		
14. P. Wholesapple					x	x			x	
15. L. Stoner		x		x		x				
16. S. Moore		x		x						x
17. G. Kephart		x		x						
18. A. Stine	x			x						
	5	7	0	12	5	6	1	2	4	4

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Covers a wide variety of material; excellent information and exercises.
- Adams, John C. Building Word Power. Austin, Texas: Steck-Vaughn Company, 1975.
More useful for literacy program.
- Adult Readers Library. (14 titles). Glenview, Illinois: Scott, Foresman and Company, 1982.
Good stories, supplemental reading to perfect reading skills.
- Anderson, Jane, Bonnie Longnion, and Marguerite Gillis. The Follet Adult Basic Reading Comprehension Program. (assorted titles). Chicago, Illinois: Follet Publishing Company, 1983.
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- Antram, Susan and Mary Catherine Spence. Adult Students' Stories Book 1 and Book 2. Pleasant Gap, PA: CIU 10 Development Center for Adults, Centre County Area Vocational-Technical School, 1985.
Book 2 is more suited to transitional needs. Adult in content and situations. Also good motivational tool for writing.
- Bailey, Mildred Hart. Spelling Steps 1, Spelling Steps 2, and Spelling Steps 3. Austin, Texas: Steck-Vaughn Company, 1984.
Steps 1 and 2 are too elementary; Step 3 has some good exercises to reinforce basic spelling skills.
- Barnes, Don, et al. Critical Thinking for Adults. Austin, Texas: Steck-Vaughn Company, 1984.
Quality material, very useful and practical.
- Basic Language Skills, Basic Reading Skills, Basic Language Skills Workbook, Basic Reading Skills Workbook, and Basic Mathematics Skills Workbook. New York: Cambridge Book Company, 1983.
Same as Pre-GED series' material; suitable and practical for transitional students.
- Bates, LaHoma S. and William H. Crouch. Earth, Science and Ecology. Wilkinsburg, PA: Hayes Publishing Co., Inc., 1973.
Good Earth Science vocabulary; large print-needs to be adapted for adults. Solid foundation in terminology.

Beers, Jim, et al. Reading for Today - A Sequential Program for Adults. Austin, Texas: Steck-Vaughn Company, 1987.

Some very good life skill exercises, however somewhat juvenile in approach.

Bell and Howell Exploring Today. Columbus, Ohio: Charles E. Merrill Publishing Co., 1970.

Interesting stories followed by excellent variety of exercises. Exercises include main idea, dictionary skills, and noting details among others. Very practical, useful material.

Bell and Howell Universal Reading. Columbus, Ohio: Charles E. Merrill Publishing Co., 1967.

Stories are interesting as well as educational; each story followed by wide variety of exercises including main ideas and word study. Practical, usable activities.

Bell, Robert. "Communication Skills." Macmillan Instant Activities Program. New York: Macmillan Publishing Co., 1984.

Proper letter format and proper letter content. Very good activities. Some of the material will need to be adapted for the adult student.

Bell, Robert. "Research Skills." Macmillan Instant Activities Program. New York: Macmillan Publishing Co., 1983.

Variety of usable dictionary skills activities.

Bellafiore, Joseph. English Language Arts Workbook. New York: Amsco School Publications, Inc., 1971.

Adaptable exercises; see "Language Ready."

Bernstein, Vivian. America's Story. Austin, Texas: Steck-Vaughn Company, 1985.

Good overview of American History; good resource material.

Boning, Richard A. and Mary R. Boning. Developing Key Concepts in Comprehension. Baldwin, New York: Barnell, Loft, L & D, 1984.

Practical and useful exercises geared to teaching the thought process.

Charuhas, Mary S., et al. Essential Mathematics for Life. (series). Glenview, Illinois: Scott, Foresman and Company, 1985.

Very usable material; excellent transitional text.

Cheyney, Arnold B. Teaching Reading Skills through the Newspaper. Newark, Delaware: International Reading Association, 1984.

Good guidelines for using the newspaper as a teaching source.

Clubb, Marcy K. Would you Believe I'm Multiplying Fractions? St. Louis, Missouri: Kids In Between, Inc., 1985.

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Clung, Margo. "Science Experiments and Nature Studies." Macmillan Instant Activities Program. New York: Macmillan Publishing Co., Inc., 1982.

Excellent exercises for learning basic science terminology.

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Good transitional material for evaluating frequent family problems and for finding practical, workable solutions.

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Variety of spelling activities.

Czyzk, Janet L. Entering The Reader's World. New York: Cambridge Book Company, 1982.

Literacy tool only.

DeCaprio, Annie. Business Spelling. New York: Monarch Press, 1973.

Excellent reference for learning and mastering the basics of spelling.

Earle, Richard A. Teaching Reading and Mathematics. Newark, Delaware: International Reading Association, 1976.

Good information; reading math problems is stressed. Key words for performing math operations presented.

English. Pleasant Gap, PA: Centre County Area Vocational-Technical School.

Good tutor tool that encompasses all the basics; exercises are useful and geared to mastering the basics of grammar and usage.

English Skills C. New York: Harcourt Brace Jovanovich, Inc., 1981.

Adaptable exercises; see "Language Ready."

English Skills E. New York: Harcourt Brace Jovanovich, Inc., 1981.

Adaptable exercises; see "Language Ready."

- Evanson, Jane L. From Pictures to Passages. Chicago, Illinois: Contemporary Books, Inc., 1984.
Reading comprehension skill builder; excellent information; good stories and practical exercises.
- Falstein, Mark. Basic Map Skills. East Lansing, Michigan: Educational Insights, 1981.
Basic concepts are good; material can be adapted for adults.
- Fleming, Lillian J., et al., eds. Building Basic Skills in Mathematics. Chicago, Illinois: Contemporary Books, Inc., 1984.
Excellent transitional material; good concepts; good for building concrete basics in math.
- Fleming, Lillian J., et al., eds. Building Basic Skills in Reading, Book 1, 2. Chicago, Illinois: Contemporary Books, Inc., 1982.
Material effective for strengthening necessary reading skills.
- Fleming, Lillian J., et al., eds. Building Basic Skills in Social Studies and Building Basic Skills in Science. Chicago, Illinois: Contemporary Books, Inc., 1982.
Excellent for learning important basic concepts; science is especially good.
- Fleming, Lillian J., et al., eds. Building Basic Skills in Writing Book 1, 2. Chicago, Illinois: Contemporary Books, Inc., 1984.
Over simplified but useful for a brief review of basics.
- Follett Coping Skills. (series). New York: Cambridge Book Company, 1981.
Some good information; easily adaptable for specific needs.
- Follett Success Skills. (series). Chicago, Illinois: Follett Publishing Co., 1982.
Excellent, usable activities especially in Holding a Job and The Language You Speak.
- Gawronski, Jane Donnelly. Mastering Computational Skills: A Self-Help Workbook. Glenview, Illinois: Scott, Foresman and Company, 1984.
Good resource books for setting up a sequential math outline and for selecting the appropriate exercises to compliment that outline.
- Goldman, Carol. "Current Events." Macmillan Instant Activities Program. New York: Macmillan Publishing Co., Inc., 1986.
Many activities focus on media; wide range thoroughly covering everything from TV to newspaper.

- Gottlieb, Joan S. Life-Coping Skills. (series). Austin, Texas: Steck-Vaughn Company, 1983.
Excellent for developing survival skills.
- Green, Judith Andrews, et al. Strategies for Success. Reading, Social Studies, Mathematics, Science. Austin, Texas: Steck-Vaughn Company, 1987.
Excellent series; terrific information along with a wide variety of exercises; comprehensive skills.
- Harder, Dale. Word Problems 6. Castro Valley, CA: The Wizard, 1981.
Good word problems, need to be adapted; too juvenile in appearance and content.
- Henney, R. Lee. Basic Education: Reading. New York: Cambridge Book Company, 1977.
Strong on phonetics and vocabulary; some usable ideas and activities.
- Hill, Randal C. Superstars of Movies and TV, Sports, Country, Music Hall of Fame, Soul, Rock. Austin, Texas: Steck-Vaughn Company, 1986.
Good stories; should be selected and used according to students' interest levels.
- Holmes, Dick. Mathematics 5 Problem Solving Activities. Palo Alto, CA: Dale Seymour Publications, 1982.
Good word problems; very practical, useful exercises.
- Howett, Jerry. Basic Skills with Fractions: A Step-by-Step Approach. New York: Cambridge Book Company, 1980.
Mix of practice problems and word problems, very practical and useful exercises; good for building competency with fractions.
- Howett, Jerry. Number Power. Chicago, Illinois: Contemporary Books, Inc., 1982.
Excellent material; practice with the basics plus follow-up exercises solving real-life math problems.
- Insights: Reading as Thinking. Watertown, MA: Master Education Corporation, 1987.
Good critical thinking skills, especially making inferences.
- Jochen, Albert E. and Benjamin Shapiro. Vocational English - 1 (Revised Edition). New York: Globe Book Company, Inc., 1968.
Adaptable exercises; see "Language Ready."

- Johnson, Laura S., ed. Reading and the Adult Learner. Newark, Delaware: International Reading Association, 1980.
Resource information; covers a wide variety of situations in which different social groups may need reading skill development.
- Jones, Betty, et al. Language Exercises Revised. (series). Austin, Texas: Steck-Vaughn Company, 1984.
Gray and Red Books - excellent for review of basic English; Pink, Violet, and Orange Books - not applicable.
- Kaufmann, Jo. Mastering Grammar, Book 1, 2. New York: Cambridge Book Company, 1985.
Excellent material for the transitional student when reaching ABE level; too complicated for the beginning transitional student.
- Kerewsky-Halpern, Barbara. Anthropology-The Story of People. New York: Cambridge Book Company, 1983.
Content OK, but the large print format makes material seem too juvenile for adults.
- Kesselman-Turken, Judi and Franklynn Peterson. Spelling Simplified. Chicago, Illinois: Contemporary Books, Inc., 1983.
Good phonetics.
- Kesselman-Turken, Judi and Franklynn Peterson. The Vocabulary Builder. Chicago, Illinois: Contemporary Books., Inc., 1982.
Nice variety of exercises for the transitional student.
- Kozol, Jonathan. Illiterate America. New York: Anchor Press/Doubleday & Company, Inc., 1985.
Comprehensive presentation of causes of illiteracy and what must be done to correct the problem.
- Kreitlow, Burton W. Steps to Learning Book 1, 2. Austin, Texas: Steck-Vaughn Company, 1979.
Perfect for literacy but not for transition.
- LaPenta, Marilyn. "Teacher Time Savers." Macmillan Instant Activities Program. New York: Macmillan Publishing Co., Inc., 1983.
Very usable material; some information needs to be adapted to an adult level.
- Littell, Joseph F., ed. Basic Skills in English (Book 3). Evanston, Illinois: McDougal, Littell & Company, 1980.
Adaptable exercises; see "Language Ready."
- Loban, Walter, et al. Grammar and Writing. New York: Macmillan Publishing Co., Inc., 1981.
Adaptable exercises; see "Language Ready."

- Malone, Violet M., ed. Coping (Adult Reading: Comprehension). (Books A-F). Glenview, Illinois: Scott, Foresman and Company, 1982.
Books D, E, F most usable. Material is good and is not presented in a juvenile manner.
- Malone, Violet M., ed. Messages (Adult Reading: Comprehension). (Books A-F). Glenview, Illinois: Scott, Foresman and Company, 1982.
Some good information that unfortunately gets lost in the large print format and juvenile appearance.
- Maney, Ethel S. and Anne F. Kroehler. New Reading-Thinking Skills. Elizabethtown, PA: Continental Press, Inc., 1962.
Good material for understanding multiple meanings and determining analogous relationships. Large print format.
- Maney, Ethel S. Reading-Thinking Skills. Elizabethtown, PA: Continental Press, Inc., 1962.
Excellent variety of exercises and activities, good for analogies, word meanings, and main ideas.
- Marston, Elsa. Art in your Hometown. New York: Cambridge Book Company, 1983.
Large print format; juvenile appearance.
- McSwain, E.T., et al. Arithmetic 5. New Jersey: Laidlaw Brothers, 1963.
Very excellent material for introducing the basics of geometry; excellent information on all types of graphs and map reading, some material needs to be adapted.
- Meltzer, Marilyn. Insurance and Taxes Know-How. New York: Cambridge Book Company, 1987.
Good for learning the basics of insurance and taxes; good vocabulary included.
- Meltzer, Marilyn. Living Expenses Know-How. New York: Cambridge Book Company, 1987.
Good for learning the basics of finding housing and being a better shopper; more appropriate for the literacy student.
- Merriam, Sharon B. Being Responsive to Adult Learners. Washington, D.C.: Scott, Foresman/AAACE, 1986.
Guidelines for understanding and meeting the needs of the adult learner.
- Mitchell, Robert. Number Power: Algebra. Chicago, Illinois: Contemporary Books, Inc., 1983.
Excellent material; provides the fundamentals in algebra without the complication and confusion. Good for the beginning algebra student.

- Mitchell, Robert and Donald Prickel. Number Power, Book 4, 5. Chicago, Illinois: Contemporary Books, Inc., 1983.
Excellent material, especially Book 5 (Graphs, Tables, Schedules, and Maps); Geometry fundamentals are presented simply, and the ~~graphs~~, etc. introduce the student to reading and interpreting this material; great for the transitional student.
- Murphy, Corea. Challenger. Syracuse, New York: New Readers Press, 1986.
Lots of vocabulary development and phonics.
- Niles, Oliver Stanford, et al. Skills for Reading A, B, D. Glenview, Illinois: Scott, Foresman and Company, 1984.
Very usable material; good concepts and exercises.
- Otfinski, Steve. "Reading and Reporting." Macmillan Instant Activities Program. New York: Macmillan Publishing Co., Inc., 1986.
Covers everything from learning to use the library to reading and writing reports. Activities and information perfect for the transitional student.
- Otfinski, Steve. "Social Studies." Macmillan Instant Activities Program. New York: Macmillan Publishing Co., Inc., 1985.
Material is highly usable, but large print format and elementary type pictures will require adaptations to appeal to the adult student.
- Packard, Mary. "Vocabulary." Macmillan Instant Activities Program. New York: Macmillan Publishing Co., Inc., 1986.
Good vocabulary basics.
- Panchyshyn, Robert, Ph.D. and Eula Ewing Monroe, Ed.D. Developing Key Concepts for Solving Word Problems-Book D. New York: Barnell Loft, Ltd., 1986.
Good concepts; good word problems.
- Pollock, Thomas Clark, et al. The Macmillan English Series 10. New York: The Macmillan Company, 1961.
Adaptable exercises; see "Language Ready."
- Putnam, Mildred. Working With Words (revised) and Working With Word Patterns (revised). Austin, Texas: Steck-Vaughn Company, 1975.
Good for review of basics; more for literacy level.
- Rakes, Thomas A., Annie DeCaprio, and J. Ralph Randolph. Living in America. (series). Austin, Texas: Steck-Vaughn Company, 1985.
Excellent series; good basics of history and law, great exercises.

Reid, Patricia, ed. The New GED Tests Overview Viewer's Guide.
Chicago, Illinois: Contemporary Books, Inc., 1987.
Adaptable exercises; see "Math Ready."

Root, Jane H. Read On! Basic Reading for Adults and Teens Book
4, 5. Syracuse, New York: Literacy Volunteers of America,
1978.
For literacy, designed to teach reading competence.

Rubin, Betsy. Edge on English: All Spelled Out A, B, C, D.
Chicago, Illinois: Contemporary Books, Inc., 1986.
Books A and B - too simplified; Book C - excellent
for plurals and prefixes; Book D - excellent for
consonants, roots, and suffixes.

Ryan, John J., Ed.D. Developing Key Concepts in Math - E (Level 5)
and Developing Key Concepts in Math - F (Level 6). New York:
Barnell Loft, Ltd., 1985.
Good concepts.

Schaefer, Jack. Shane. New York: Bantam Books, 1949.
Adaptable exercises; see "Language Ready."

Shehan, Lawrence Philip. English and You. New York: Holt, Rinehart
and Winston, Inc., 1962.
Adaptable exercises; see "Language Ready."

Schenk, Brian, ed. Living in the Reader's World. New York:
Cambridge Book Company, 1983.
Good survival skills. Too basic for transition.

Schenk, Brian. Mastering Reading Comprehension One and Two.
New York: Cambridge Book Company, 1985.
Very excellent, comprehensive exercises; covers all
aspects of reading from context clues to comprehension
skills. Some exercises, however, may be too
difficult for the beginning transitional student.

Schenk, Brian, ed. Snapshots: A Collection of Readings for
Adults. New York: Cambridge Book Company, 1984.
Good material; not too complicated or complex; nice
variety of questions and activities.

Schwartz, Roberta. "Self-Awareness." Macmillan Instant Activities
Program. New York: Macmillan Publishing Co., 1986.
Good activities for evaluating every day life skills.

Seiger, Barbara. Mastering Spelling. New York: Cambridge
Book Company, 1985.
Good basics; sections on spelling rules, homonyms, and
spelling lists are especially good.

Shattuck, Barbara Nemmers. Get Back to Phonics. Step by Step Publications, 1985.

Directed toward learning phonetic skills to improve spelling and reading; good for literacy.

Shea, James T. Working with Numbers. (series). Austin, Texas: Steck-Vaughn Company, 1980.

Good combination of practice problems and word problems; material presented in an adult manner with concepts that are easy to understand.

Speiser, E. Mildred. Math Skills by Objectives. New York: Cambridge Book Company, 1985.

Real usable material; set-up of the material is absolutely excellent; moves the student from one level to the next when the student is ready; practical exercises.

Steps to Mathematics: Book 1 and Book 2. Steck-Vaughn Editorial Staff. Austin, Texas: Steck-Vaughn Company, 1980.
Suitable for beginning literacy student.

Swinburne, Laurence, John F. Warner and Margaret B. Warner. Mastering Basic Reading Skills. (action series). Austin, Texas: Steck-Vaughn Company, 1985.

Good stories and activities; selections should be used in accordance with the students' interests.

Swinburne, Laurence and John F. Warner. Reading Skills for Adults. Austin, Texas: Steck-Vaughn Company, 1986.

Interesting stories; excellent practical application skills.

Switzer, Stephen E. Mastering Word Problems. St. Louis, MO: McDonald Publishing Co., 1980.

Excellent word problems, especially dealing with fractions, decimals, and percents: ready to use; format geared perfectly for adults.

Sylvester, Diane. "Reading." Macmillan Instant Activities Program. New York: Macmillan Publishing Co., Inc., 1986.

Variety of reading activities that includes all the fundamentals; practical exercises.

Tamarkin, Kenneth. Number Power: Book 6 - Word Problems. Chicago, Illinois: Contemporary Books, Inc., 1983.

Excellent material; written and organized to help the student understand, interpret, and solve word problems. Material is graduated, moving slowly from simple to more complicated problems.

Tempel, A. and Barbara Slater. Grasping Graphs. St. Louis, Missouri: Kids In Between, Inc., 1985.

Adaptable exercises; see "Math Ready."

The 1988 Tests of General Educational Development: A Preview.

The GED Testing Service: American Council on Education, 1985.

Preview of the content, format, and scoring of the 1988 GED test.

Thomas, Richard C. Hayes Activities for Vocabulary Building.

Wilkinsburg, PA: Hayes School Publishing Co., 1971.

Information valuable for basic vocabulary; large print format.

Tivenan, Bonnie. New Beginnings in Reading. Chicago, Illinois:

Contemporary Books, Inc., 1985.

Useful series for literacy.

Townsend, Donna, Linda Ward Beech, and Tara McCarthy. Steck-Vaughn Comprehension Skills: Main Ideas 1, 2; Content 1, 2; Conclusion 1, 2; Facts 1, 2; Sequence 1, 2. Austin, Texas: Steck-Vaughn Company, 1987.

Excellent material, good for teaching one concept at a time.

Truitt, Ann. Read Better. Austin, Texas: Steck-Vaughn Company, 1975.

Large print format; content and appearance. Not appropriate for transitional adults.

Tussing, Ann K.U. Breakthrough to Math: Level One. (series). Syracuse, New York: New Readers Press, 1981.

For the student who must begin with the very basics, this series would serve an important purpose. It is, however, a bit juvenile in appearance.

Tussing, Ann K.U. Breakthrough to Math: Level 2. (series). Syracuse, New York: New Readers Press, 1982.

Basics of fractions and percents presented in understandable concepts. Plenty of practice exercises included. Extremely usable material. Some material rather juvenile in appearance.

Tyler, Vicki. Mastering Vocabulary. New York: Cambridge Book Company, 1985.

Good vocabulary exercises; a little too complex, however, for the beginning transitional student.

Warriner, John E. and Francis Griffith. English Grammar and Composition (Fourth Course). New York: Harcourt Brace Jovanovich, Inc., 1977.

Adaptable exercises; see "Language Ready."

Warriner, John E., William Renison, and Francis Griffith. English Grammar and Composition 10. New York: Harcourt, Brace, and World, Inc., 1965.

Adaptable exercises; see "Language Ready."

Warriner, John E., Mary E. Whitten, and Francis Griffith. English Grammar and Composition 9. New York: Harcourt Brace Jovanovich, Inc., 1969.

Adaptable exercises; see "Language Ready."

Wiemann, Mary. "Grammar and Spelling." Macmillan Instant Activities Program. New York: Macmillan Publishing Co., Inc., 1981.

Basics of spelling and grammar presented in an easily understandable manner. Format not adult appropriate.